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Assisting Clients with Psychosocial Adjustment After Sustainment of a Traumatic Hand Injury: A Therapist's Guide

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ASSISTING CLIENTS WITH PSYCHOSOCIAL ADJUSTMENT AFTER
SUSTAINMENT OF A TRAUMATIC HAND INJURY: A THERAPIST'S GUIDE

by

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Advisor: Dr. Mandy Meyer, Ph.D

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Submitted to the Occupational Therapy Department

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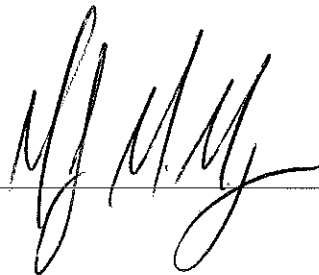
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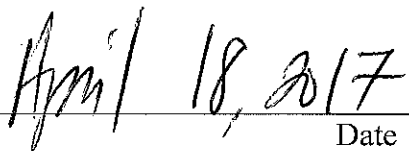
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This Scholarly Project Paper, submitted by Rachel Kos, MOTS and Jessica Nordmeyer, MOTS in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.



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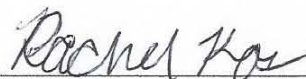
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ABSTRACT

Purpose: Adaptation to psychosocial aspects of hand injury is often undervalued, yet a critical issue to address in traumatic hand injuries (Schier & Chan, 2007). The purpose of this scholarly project was to develop a guide to address such factors in a hand therapy setting.

Methodology: A review of the literature was conducted to demonstrate the importance of hands, psychosocial implications related to hand trauma, and current strategies used by practitioners to address these problem. Findings of the literature review concluded that the most prevalent psychological factors related to hand injuries include mood and trauma disorder symptomatology, problems related to role identity, work and financial stress, issues related to social interactions and relationships, stigma, pain, and dysfunctions in sleep. Authors used the Canadian Model of Occupational Performance and Engagement (CMOP-E) to guide the creation and intended use of this product to assist therapists in addressing psychosocial factors related to hand trauma.

Results: The findings of the literature review were used to develop a guide that aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client's overall wellbeing and function. The first portion of the product includes a self-assessment evaluation tool that gives the client an opportunity to evaluate in which ways the hand trauma has affected functioning and overall wellbeing on a psychosocial level. The second half of the product includes intervention ideas that correlate with the psychosocial implications that were previously self-assessed by the client to give therapists ideas of how to address these factors.

Conclusions: The identification and intervention of psychological implications will assist in successful adjustment and recovery across many consequences of sustaining a traumatic hand injury (Smurr et al., 2008). Despite the significance of hands in day-to-day function, many therapists are criticized for addressing the physical dysfunction of the hand exclusively and disregarding psychosocial implications (Bates & Mason, 2014). The authors created a product that will aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client's overall wellbeing and function.

CHAPTER 1

Introduction

Significance

Occupational therapists have a significant role in addressing factors that impede daily function, such as sustainment of a traumatic hand injury. Hand injuries are known to have significant physical, psychological, and social consequences as a result of change in hand function (Hannah, 2011). Hands are essential to an individual's overall identity as a human being (Bates & Mason, 2014). Identities are deeply rooted in one's ability to independently engage in meaningful occupations and to fulfill life roles. Despite the significance of hands in day-to-day function, many therapists are criticized for addressing the physical dysfunction of the hand exclusively and disregarding psychosocial implications (Bates & Mason, 2014). However, psychosocial issues are a normal and expected response to significant hand injury. There has been an increase in the analyzing and discussion of the psychosocial implications of sustaining a traumatic hand injury over the past 25 years (Hannah, 2011). Despite the significant impact that hand injury has on psychosocial well-being, there are limited resources available for occupational therapists to use to address such factors in an outpatient hand therapy setting.

Population

Currently, hand therapy settings place a large emphasis on physical rehabilitation but largely ignore psychosocial implications and the significance of the client's injury on

participation in daily activities (Chan & Spencer, 2004). Psychosocial implications of injury are often interrelated with physical barriers of hand injury (Hannah, 2011). As both physical and psychological factors are within the occupational therapy scope of practice, it would be both beneficial to clients and efficient for therapists to address both simultaneously.

Therapists who recognize the significant psychosocial implications of hand trauma are able to incorporate this knowledge into evaluation and treatment programs to increase the potential for greatest rehabilitation outcomes. With consideration that hand injuries are often complex and require long-term therapy services, outpatient hand therapists have a unique role in facilitating adjustment to injury and addressing psychosocial implications (Hannah, 2011). For the reasons summarized above, authors developed the product with intentions to cater to occupational therapists working with individuals experiencing the physical and psychosocial implications of a traumatic hand injury. As hand injuries are often variable in nature, this product was also created so therapists are able to address psychosocial factors related to the trauma with individuals identifying with any and all demographics.

Introduction to the Product

The authors created a product that will aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client's overall wellbeing and function. The first portion of the product includes a self-assessment evaluation tool that gives the client an opportunity to evaluate in which ways the hand trauma has affected functioning and overall wellbeing on a psychosocial level. The second half of the product includes intervention ideas that correlate with the psychosocial implications that were previously self-assessed by the client to give therapists ideas of how to address these factors. This two-part product allows for therapists to address psychological

factors from a client-centered perspective by allowing the client to self-assess how the injury has affected his/her wellbeing within a variety of areas. In addition, therapists will be able to use the product with ease, as areas that clients have identified as troublesome will be correlated with potential intervention ideas to address the problem's specific psychosocial factors.

Theoretical Framework

The authors of this product used the Canadian Model of Occupational Performance and Engagement (CMOP-E) to guide the creation and intended use of this product to assist therapists in addressing psychosocial factors related to hand trauma. Occupation is seen as the bridge that connects the person to his/her environment (Turpin & Iwama, 2011). The role of the occupational therapist in this model includes facilitating occupational performance and engagement through enablement and client-centered practices (Turpin & Iwama, 2011). The model promotes “client participation and power sharing as much as possible” (Craig et al., 2007, p. 251). To achieve this, therapists use aspects of the Canadian Practice Process Framework (CPPF) and Canadian Model of Client-Centered Enablement (CMCE).

The CPPF guides the therapist through eight key action points to assist the client in reaching occupational participation and engagement.⁵ These eight action points include the following:

- Enter/initiate: This is the first stage of contact with the client. The client is identified and it is determined if occupational therapy is an appropriate referral.
- Set the scene: The therapist and client build a collaborative relationship by establishing rapport and setting expectations.

- Assess/evaluate: This stage includes an evaluation of aspects of the person, environment, and occupation. These aspects are then analyzed to recognize in what ways factors are influencing occupational performance and engagement.
- Agree on objectives and plans: Using a collaborative relationship, both the client and therapist discuss goals of what the client hopes to achieve from an occupational engagement perspective. In addition, the therapist and client develop a plan to reach agreed objectives.
- Implement the plan: This stage involves carrying out the plan agreed upon in the previous stage. Enablement skills are intentionally used to guide interaction between the client and the therapist to promote client-centered practice and power-sharing.
- Monitor or modify the plan: The plan is evaluated to ensure that it is progressing appropriately. The plan is modified or redesigned if it is not helpful in reaching the client's developed goals. Both the therapist and client should approve this change in the plan.
- Evaluate the outcome: In this stage, outcomes related to occupational goals are reevaluated. This is to determine if goals have been reached or if there are still significant occupational issues.
- Conclude/exit: A mutual end of the client-therapist relationship is established. The client and therapist discuss appropriate referrals and a discharge summary is produced.

Additionally, the CMCE outlines enablement skills, which describe how therapists interact with their clients to foster a client-centered relationship (Townsend et al., 2007). The enablement skills offered by this product include the following:

- Adapt: Providing opportunities for the client to engage in occupations by altering the environment or occupations to fit issues associated with occupational engagement.
- Advocate: Raising awareness of common issues related to occupational engagement to key decision makers and those who have power to create change on behalf of or with the client.
- Coach: Assisting clients in reflecting and recognizing their motivation in meaningful occupations to enhance occupational engagement through conversation.
- Collaborate: Placing emphasis on power-sharing by therapists working with clients to address occupational needs and promote occupational engagement.
- Consult: Seeking experts outside of the client-therapist relationship to exchange knowledge and gain additional perspective associated with issues in occupational engagement.
- Coordinate: Creating interactions between the client and outside resources (such as information, organizations, or services) to facilitate occupational engagement.
- Design/build: Connecting the client with materials to assist in adaptation, which will facilitate occupational engagement. Examples of products include assistive technology or orthotics.
- Educate: Assisting the client in understanding pertinent information through educational principles. This is often achieved through active occupational engagement, which is used to process learned material.

- Engage: Encouraging the client to actively participate in occupation from a client-centered perspective through participation of the therapist or others.
- Specialize: Using specific techniques to give clients the skills to actively engage in occupations.

In this model, spirituality is represented at the core, with aspects of the person, environment, and occupation as surrounding layers (Turpin & Iwama, 2011). Components of the person represented in this model include cognitive, affective, and physical performance (Turpin & Iwama, 2011). The model categorizes occupations into the categories of self-care, productivity, and leisure (Turpin & Iwama, 2011). Finally, environmental concerns in relation to this model include physical, institutional, cultural, and social contexts (Turpin & Iwama, 2011). The process outlined through the CPPF and the enablement skills promoted through the CMCE are implemented in the guide and used by therapists to address psychosocial factors related to hand trauma.

Key Terms and Concepts

For the purposes of this product, a significant hand injury can be defined as any permanent damage in the hand resulting from sudden or accidental means (Bates & Mason, 2014). Significant hand injuries are often related to damage to bone, tendon, or nerve. In addition, soft tissue damage, loss, or amputation of the hand are also considered significant hand injuries (Bates & Mason, 2014). Along with structural damage, trauma eludes to sudden or unexpected injury to or loss of one's hand, which impedes engagement in meaningful occupations (Bates & Mason, 2014). Psychosocial factors considered throughout

this product include disruptive or negative thought processes, coping skills, or behaviors that impede engagement in meaningful occupations (Bates & Mason, 2014).

Summary

The authors of this project aimed to create a product for therapists that will ease the process of evaluating and addressing psychosocial implications of significant hand trauma among clients in an outpatient hand therapy setting. The chapter immediately following includes a comprehensive literature review of significant psychosocial factors related to traumatic hand injuries that can be found in the current research. Chapter III contains a methodological overview, including how the literature review assisted with the development of the product. In Chapter IV, the final development of the product is presented. And finally, Chapter V contains a summary and conclusion of the scholarly project process.

CHAPTER II

Review of Literature

A comprehensive review of the literature was conducted to evaluate the significance of hands in everyday life, common psychosocial adjustment issues related to sustainment of a traumatic hand injury, and current interventions used to address such issues. The following is a review of the literature to gain a better understanding of the importance of hands, various psychosocial factors related to hand trauma, and current assessment and intervention strategies found to be useful for this population. Significant findings were gathered and summarized in the following literature review.

A significant hand injury can be defined as any permanent damage in the hand resulting from sudden or accidental means (Bates & Mason, 2014). Significant hand injuries are often related to damage to bone, tendon, or nerve. In addition, soft tissue damage, loss, or amputation of the hand are also considered significant hand injuries (Bates & Mason, 2014). Along with structural damage, trauma eludes to sudden or unexpected injury to or loss of one's hand, which impedes engagement in meaningful occupations. Hand injuries are known to have significant physical, psychological, and social consequences as a result of change in hand function (Hannah, 2011). "Hands are an integral part of what defines us as human beings. They provide us with independence in work, leisure, self-care, and social interactions. More than any other part of the body, hands are symbolic in communication and are vehicles of expression. They are used in greetings, prayer, intimacy, and aggression"

(Hannah, 2011). Hands are critical to interacting with the environment and provide a means of expression in relation to socialization (Sousa, Sonavane, Kurvey, Kukreja, & Shah, 2013).

There has been an increase in the analyzing and discussion of the psychosocial implications of sustaining a traumatic hand injury over the past 25 years (Hannah, 2011). Hand injuries are frequently reported to be both physically and psychologically catastrophic (Sousa et al., 2013). Psychosocial implications of injury are often interrelated with physical barriers of hand injury, and as a result should be addressed in conjunction with one another (Hannah, 2011). In addition to physical deficits, hand injuries can produce functional, occupational, social, and cosmetic deficits that can have significant implication on an individual's well being (Sousa et al., 2013).

Adaptation to psychosocial aspects of hand injury is often undervalued, yet a critical issue to address in upper extremity injury (Schier & Chan, 2007). Currently, hand therapy settings place a large emphasis on physical rehabilitation but largely ignore psychosocial implications and the significance of the client's injury on participation in daily activities (Chan & Spencer, 2004). Therapists who recognize the significant psychosocial implications of hand trauma are able to incorporate this knowledge into evaluation and treatment programs to increase the potential for greatest rehabilitation outcomes. Since hand injuries are often complex and require long-term therapy services, outpatient hand therapists have a unique role in facilitating adjustment to injury and addressing psychosocial implications (Hannah, 2011). The following is a review of the literature to gain a better understanding of the importance of hands, various psychosocial factors related to hand trauma, and current assessment and intervention strategies found to be useful for this population. This

information will be used to assist in the development of a guide to address such factors in a hand therapy setting.

Psychosocial Aspects of Hand Trauma

Hand traumas are known to have an effect on function, which in turn result in negative psychosocial consequences. Significant functional factors associated with hand trauma include avoiding work, issues related to sleep hygiene, pain, and consequences related to social functioning (Sousa et al., 2013). Sustainment of a traumatic and major hand injury may have an impact on the individual psychologically, as hands play an important role in day-to-day function and overall independence (Bates & Mason, 2014). As a result, an injury to the hand that affects one's ability to independently function throughout their daily life may have a negative impact on the view they have on their own self-worth (Bates & Mason, 2014). The following are psychosocial factors commonly seen in the literature as a result of a traumatic injury to the hand.

PTSD, Anxiety, and Depression

It is possible that individuals with traumatic hand injuries may experience symptomatology of anxiety, depression, or PTSD. During the rehabilitation process, it is critical that interventions with clients and family members begin early to eliminate fears and provide support during times of loss and grief to reduce the impact of mood and trauma symptomatology on the client (Smurr et al., 2008). Many individuals with a hand injury reported on the importance of processing the trauma of the accident as a part of the recovery process. Processing the trauma experience was achieved by thinking about the experience multiple times a day, discussing with close social support, and professional help (Cederlund, Thoren-Jonsson, & Dahlin, 2009).

Gustafsson, Persson, and Amilon (2002) found that most participants in their study had analyzed the traumatic experience to cope with the emotions related to the threatening experience. Persistent psychological distress may be attributed to one's subjective view of the appearance of their hand in conjunction with memory of the trauma (Hannah, 2011). Intense emotional responses immediately after an hand trauma such as guilt, fear, anger, and anxiety are common while undergoing therapy and surgical interventions as the individual begins to assess the ongoing influence the injury will have on their daily life (Hannah, 2011). Clients may feel more at ease if they were to be educated regarding these normal responses to trauma early on in the recovery process (Hannah, 2011). Strategies that have been utilized by clients and were found to be beneficial include processing the experience internally, seeking social supports to discuss the experience, and accepting the injured hand as different (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Beyond simply processing the trauma, PTSD is a prominent psychopathology associated with hand trauma according to the literature (Sousa et al., 2013). Flashbacks have been commonly associated with trauma-related hand injuries (Sousa et al., 2013).

In addition to PTSD, anxiety and depression symptomatology can arise as a result of hand injury. Depression associated with hand trauma is the most frequently reported psychopathology (Sousa et al., 2013). In a study by Schier and Chan (2007), authors found that clients experienced symptoms of depression and frustration as a result of dissatisfaction with their ability to perform within their life roles. Hand injuries resulting in deformity of the hands can also cause embarrassment to the individual, and, in addition, attract constant attention and questions about the injury (Sousa et al., 2013). All participants in a study by Chan and Spencer (2004) had to adjust to depending on others for help which participants

found to elicit depressive symptoms. Trauma-related and depressive disorders are possible consequences of hand injury, and should be considered during the rehabilitation process (Cederlund, Thoren-Jonsson, & Dahlin, 2009).

Functional impairment, trauma-related stress, negative reactions to the sight of the hand, pain, and mood disorders are problems that are identified shortly after the initial injury and typically decrease within the first three months after the injury occurs (Hannah, 2011). If difficulties with adjustment do not resolve by this time, it is possible that these elements may be impeding occupational engagement. Therefore, a good time to distinguish the need for additional psychological support, such as counseling, is three months after the trauma-related incident (Hannah, 2011).

Role and Identity Adjustments

Hand trauma can have a significant impact on the roles and identity of an individual. In a study done by Schier and Chan (2007), authors found that changes in life roles, daily patterns, and routines were significant after a hand injury. A hand injury can have serious implications in how one experiences his or her life roles (Schier & Chan, 2007). Additionally, hand trauma can result in a loss of activities usually engaged in within a given role (Schier & Chan, 2007). Clients commonly feel inclined to adapt their habits and roles related to the occupations that they engaged in prior to sustainment of a major hand injury (Bates & Mason, 2014). This adaptation process may even include termination of meaningful habits, roles, or occupations altogether (Bates & Mason, 2014).

Significant hand injury can also result in role reversal. The human hand is a significant aspect in regards to independence and caregiving (Schier & Chan, 2007). An individual who used to identify as a caretaker and has lost independence may have to rely on

those they were care taking for to perform self-cares or other tasks (Schier & Chan, 2007). Role reversals and changes due to the perceived functional loss that results from a major hand injury may significantly deteriorate the individual's self-image and feelings of adequacy (Hannah, 2011). A client may feel he/she is inadequate to care for child or other family members due to loss of hand function (Schier & Chan, 2007). Therapists may be able to help clients find more success in adjusting to changes in roles by modifying activities that relate closely to the demands of their roles (Schier & Chan, 2007).

As role changes and activity termination often increase feelings of functional loss, individual's experience a loss of their own personal identity, decrease in self-esteem, and feel a sense of inadequacy (Hannah, 2011). Interventions that are focused on functional and meaningful goals directed towards increasing independence in areas of self-care can provide a sense of autonomy, restoration of roles, and an increase in self-esteem for clients (Hannah, 2011). Facilitation of participation in such meaningful activities through means of modification, compensation, and adaptation will enhance and ensure a sense of role identity is maintained throughout the recovery process (Hannah, 2011).

Work and Financial Stresses

Work serves as an important role for many individuals as well as a source of social interaction and overall life satisfaction (Hannah, 2011). The role of being a worker connects an individual to a larger aspect of society, which can be threatened by a hand injury (Schier & Chan, 2007). Sudden loss or changes in one's ability to perform in their role as a worker may lead to decreased overall self-esteem and changes in finances (Hannah, 2011). Furthermore, such an injury can affect one's life goals, financial security, and overall wellbeing (Schier & Chan, 2007).

Financial changes or stressors may cause changes in family life and participation in events that once held meaning such as vacations, sports, and other extracurricular activities (Hannah, 2011). When a hand injury affects one's ability to be financially secure and engage in various activities, overall changes in family social status may occur as a result (Schier & Chan, 2007). A hand injury that results in visible disfigurement may also lead to difficulty gaining new employment opportunities as it can lead possible employers to assume disability (Hannah, 2011). This is especially relevant when many people are interviewing for the same job or when the economy is fragile (Hannah, 2011).

Work avoidance is a possible symptom related to injury, and the likelihood of work avoidance increases if the injury occurred at work (Sousa et al., 2013). The outcomes of returning to work after sustaining an hand injury of the forearm, wrist, or hand are greatly improved when individuals are provided with holistic treatment interventions and comprehensive evaluations that incorporate physical, psychosocial, and social factors (Chen, et al., 2012). Interventions that would provide support and assistance with adjustment of the worker role after sustainment of a major hand injury may include work modifications, assistance coming to terms with fear of re-injury while performing work-related tasks, and any PTSD triggers one may experience (Hannah, 2011).

Social Isolation

There are many social adjustments that commonly take place after a hand injury occurs such as acceptance of a certain degree of dependence on others, role modifications and failures, social stigma, evaluation of life goals, and a new body image (Hannah, 2011). Hands are unique in their ability to assist in expressing emotions and communicating thoughts and feelings, which is so ingrained into everyday life that it's often taken for

granted (Schier & Chan, 2007). Hand use is a person's direct vehicle of interacting with the environment and is often considered to be imperative while communicating with others (Sousa, Sonavane, Kurvey, Kukreja, & Shah, 2013).

Due to the relatively small population of those who undergo hand trauma, it is likely that the individuals will feel isolated from their peers or society as a whole (Morris, 2008). Individuals with hand injuries that result in disfigurement and amputation become acutely aware of how others perceive their body image in social environments, considering the natural visibility of hands in general (Hannah, 2011). Participation in rehabilitation groups related to hand trauma may be an appropriate way to process the experience and relate to others in similar situations (Cederlund, Thoren-Jonsson, & Dahlin, 2009).

Hands are also an important factor to consider in relation to appearance and body image (Hannah, 2011). During social situations, acquaintances or strangers may stare at the deformity of the hand or may even display behaviors of disgust, leading to a desire for social isolation for the individual (Sousa et al., 2013). Significant hand injury may result in feelings of being socially unacceptable, as well as senses of inadequacy (Sousa et al., 2013). Clients may fear what others think of trauma, and as a result may isolate themselves instead of facing this fear (Sousa et al., 2013). This type of isolating and distancing behavior may also be a method of avoiding discussion or focus on the individual's injury throughout social conversations or situations (Hannah, 2011). Sousa et al. (2013) also found concerns with body image and appearance of injured hand to have deep psychological implications affecting daily function. One's acceptance of physical and emotional help from social supports may vary greatly for each individual (Cederlund, Thoren-Jonsson, & Dahlin,

2009). Health care providers should spend time gaining knowledge regarding the value of independence with their clients for the best rehabilitation potential (Chan & Spencer, 2004).

A decrease or termination in socialization as a result of a traumatic hand injury may have negative implications and interfere with overall adjustment during the recovery process (Hannah, 2011). Addressing these behavioral changes throughout therapy sessions in a collaborative manner to discover useful strategies for social adjustment has been shown to be beneficial for clients after a hand injury (Hannah, 2011). The specific strategies that are utilized by clients are dependent upon cultural, family, and individual norms and values (Hannah, 2011).

As a therapist, it is important to acknowledge and normalize feelings of isolation. Gradual exposure of the injured hand to the public may be appropriate throughout therapeutic intervention (Sousa et al., 2013). This serves the purpose of giving the client confidence in showing the public that, despite injury, the hand can be used functionally. It allows the client to feel less like he/she is hiding the hand and able to use the hand as usual (Sousa et al., 2013). In addition, significant others, family members, and close friends are identified as important members of social supports after hand trauma, along with keeping contact with work colleagues (Cederlund, Thoren-Jonsson, & Dahlin, 2009). In a study completed by Chan and Spencer (2004), engaging in meaningful activities and affirmations from significant social supports were important in motivating the participants during the recovery process.

Sexuality and Intimate Relationships

Hand trauma can have critical effects on marital and sexual functioning. Hands play a major role in the expression of intimacy through conveying feelings, emotions, and

sexuality (Hannah, 2011). After a hand injury, physical and emotional expressions of intimacy are often affected by psychological stress (Hannah, 2011). Changes in sexual desire and performance may result due to shame in appearance of hand (Sousa et al., 2013). Sexual responses may be affected or inhibited due to uncomfortable clumsiness during sexual acts, which could be detrimental to the marital relationship as a whole (Sousa et al., 2013).

Hand disfigurement resulting from a traumatic injury can also lead to relationship difficulties (Hannah, 2011). Individuals may begin to experience feelings of vulnerability and worthlessness due to dependency on others after the accident (Sousa et al., 2013). Significant others can be resentful for the extra responsibilities taken on due to his/her spouse's injury (Sousa et al., 2013). In addition, hand injury may increase one's perception of being a stressor or burden to others (Schier & Chan, 2007).

Stigma

Individuals going through rehabilitation after a major hand injury may begin to experience a certain degree of stigma that results in hesitation to seek mental health services, social isolation, and behaviors that suggest feelings of inadequacy and shame. The perceived stigma that is often associated with psychological distress results in the hesitancy that clients have to discuss or address the psychological problems they are experiencing (Hannah, 2011). This, in turn, creates stress for clients and their families if they are to notice behavioral changes and increased emotional responses (Hannah, 2011). An attempt for others to help the individual with hand trauma, therefore further bringing attention to occupational performance lost via the injury, results in increased feelings of stigma and social isolation (Schier & Chan, 2007). Communicating and providing a safe and

nonthreatening environment to discuss and address psychological problems is therefore essential to the adjustment process (Hannah, 2011).

Despite the cause of hand injury, issues regarding appearance of the hand are of great concern for the client (Sousa et al., 2013). Clients often have difficulty adjusting to the new look of the hand after a significant injury (Sousa et al., 2013). Observation of a client's response to the sight of their hand after an injury often indicates the extent of psychological support they are in need of (Hannah, 2011). Gaze aversion initially after a hand injury is common and typically decreases substantially within the first 18 months after the trauma occurs (Hannah, 2011). However, if the client experiences gaze aversion beyond this point in time, he/she is prone to adjustment difficulties (Hannah, 2011). In addition, the look of the injury can lead to recollections and flashbacks related to the injury (Sousa et al., 2013). Behaviors of the individual may change to hide the injured hand, including keeping one's hand in a pocket or increasing length of time for dressings (Sousa et al., 2013).

Maladaptive Responses to Trauma

Hand injury can have a significant effect on identity, well-being, and independence. Psychosocial concerns that often arise with hand injury include fear of the future, loss of self-efficacy, fear of rejection, and change in occupational roles (Smurr et al., 2008). From a psychosocial perspective, hand injury can result in feelings of insecurity, incapability, and a need to rely on others (Schier & Chan, 2007).

Coping is the way in which a person cognitively and behaviorally deals with or manages a given situation that causes psychological stress (Hannah, 2011). A person's coping strategies in any given situation are dependent upon the specific injury that is sustained, physical and social environment, and personal experience (Bates & Mason,

2014). In addition, the adaptation process after a traumatic hand injury is progressive and varies continuously throughout recovery (Bates & Mason, 2014).

While some clients practice coping strategies that may be categorized as healthy or positive, other strategies can be perceived as maladaptive or negative. For example, drug or alcohol use may be used to control physical or psychological pain, which is a maladaptive response to the stress of the injury (Sousa et al., 2013). Some clients with hand trauma may avoid sleep as a coping strategy (Sousa et al., 2013).

Coping strategies that individuals may experience and utilize over a short span of time after the injury occurs may include avoidance of the truth, a need to process the traumatic event that resulted in injury, a search for assistance such as social and emotional support for practical problem solving, and maintenance of some form of control of everyday life (Bates & Mason, 2014). Longer-term coping strategies that are commonly experienced among individuals are acceptance of condition followed by resignation of complete control over the rehabilitation process, resumption of occupations, and adjustment of occupational roles, habits, and routines (Bates & Mason, 2014).

Participants in a study by Cederlund, Thoren-Jonsson, and Dahlin (2009) used negative emotional strategies to cope with the injured hand. Participants avoided engaging in various occupations including sexual activities, social situations, and driving. Avoidance of activities occurred to protect the hand, which ultimately stemmed from the participant's fear of re-injury. In addition, some participants denied the injury having any effect on their ability to engage in activities despite significant injury. Habits of avoidance and denial of problems related to participating in meaningful activities should be addressed during routine care of clients (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Gustafsson, Persson, and

Amilon (2002) also found that participants distanced or avoided certain problems associated with the injury so that they did not require immediate attention. In addition, participants in this study also used distracting attention to cope with negative emotions by staying busy with other occupations (Gustafsson, Persson, & Amilon, 2002).

In addition to maladaptive coping strategies, negative responses to trauma can interfere with daily living and the rehabilitation process. Common emotional responses individuals experience after sustaining a traumatic injury to the hand are anger, guilt, and frustration (Bates & Mason, 2014). Guilt and loss of control can occur if the client feels that they could have changed the outcome of the accident (Sousa et al., 2013). Frequent mood fluctuations are also likely to occur throughout the process of adapting to changes in day-to-day life, which commonly mirror symptomology of anxiety, depression, and PTSD (Bates & Mason, 2014).

Individual responses to trauma, such as experiencing a major hand injury, vary greatly depending on self-evaluation of how the injury will impact the person's overall quality of life and the skills in which they use to cope with this evaluation process (Hannah, 2011). However, after sustainment of a traumatic hand injury, disengaging strategies such as distancing, believing the worst, emotional avoidance, and perceived helplessness are also common and associated with difficult adjustment (Hannah, 2011). It is imperative for therapists to identify and understand which coping strategies are likely to be utilized by each individual client throughout each stage of the rehabilitation and adaptation process, as certain strategies may facilitate adjustment while others may be detrimental depending on the client's current stage of recovery (Hannah, 2011).

A study by Chan and Spencer (2004) found that the relationship between physical and psychosocial adjustment varies greatly and is dependent upon the individual and their own personal experiences (Bates & Mason, 2014). The coping strategies utilized by individuals that have experienced traumatic hand injuries are commonly developed based upon these personal experiences and may fluctuate throughout the healing process (Bates & Mason, 2014). Thus, it's important to acknowledge aspects of the person when assisting with teaching coping strategies to a client with hand trauma, including preferred level of independence. During therapy, it is also important to intervene negative coping skills such as avoidance, guilt, anxiety, and depression related to the injury to maximize function in daily activities (Sousa et al., 2013).

Positive Coping Strategies

In comparison to maladaptive responses to hand trauma, research shows that individuals may also have positive coping strategies used to facilitate adjustment after injury. Changing various aspects of an occupation to promote successful performance was a strategy used by clients to facilitate adjustment, such as prioritizing occupations, allotting more time to complete occupations, simplifying occupations, and other strategies (Gustafsson, Persson, & Amilon, 2002).

Psychosocial intervention focusing on positive, effective coping strategies can have significant impacts on function and recovery from a hand injury (Sousa et al., 2013). For example, comparing a hand injury with a potentially worse situation is a coping strategy used to facilitate adjustment to the injury, which is associated with positive thinking (Gustafsson, Persson, & Amilon, 2002). Participants of one study stated the significance of using optimistic thinking and acknowledging small improvements in functioning for psychosocial

well being (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Gustafsson, Persson, and Amilon (2002) also found positive thinking to be a common coping strategy related to hand injury, whether the positive thought is authentic or imagined. Individuals with hand trauma may use positive thinking to manage stress related to worrying about the future (Gustafsson, Persson, & Amilon, 2002). Additional positive coping strategies found included relying on their own beliefs regarding personal capacity to persevere through a difficult time, regaining control of their current situation, and accepting the situation and attempting to make the best of it (Gustafsson, Persson, & Amilon, 2002).

Clients with a major hand injury seek social supports for both emotional and practical support purposes (Gustafsson, Persson, & Amilon, 2002). Participants in a different study found the importance of staying in contact with friends, family, and the workplace throughout the rehabilitation process as a means of practical support, socialization, and coping (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Certain clients may benefit from simplified variations of their current occupations, while other clients may feel the need to maintain a sense of control over their existing occupations by solving problems independently (Bates & Mason, 2014).

Some authors described and categorized two types of methods used to cope with trauma: emotion-focused strategies and problem-focused strategies. Emotion-focused coping strategies may be more appropriate to teach and address during stressful circumstances in which the outcome is unlikely to change (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Using positive emotional strategies are important for coping with an uncertain future in terms of the affected limb and function (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Problem-focused coping is commonly utilized when the traumatic injury is deemed

controllable by the individual through taking action or adapting (Hannah, 2011). Coping in which the individual chooses to engage in focusing on changing the problem or managing emotions is associated with positive adjustment (Hannah, 2011).

Choices of coping strategies are unique to individual and appear to be related to personality characteristics, in addition to the nature of the situation (Gustafsson, Persson, & Amilon, 2002). Fully addressing psychosocial implications of a hand injury requires individualization and incorporation of interpersonal aspects of the individual within standardized protocols during therapy (Chan & Spencer, 2004).

Pain

Individuals with trauma-related hand injury often undergo persistent and distressing pain (Walsh et al., 2016). This type of intense pain commonly interferes with goal-directed activities and daily routines, which may also be inhibitory throughout rehabilitation of a traumatic hand injury (Walsh et al., 2016). Individuals experiencing such hindering pain are more likely to restrict participation in meaningful activities and are less likely to utilize orthotics or prostheses (Walsh et al., 2016). Decreased participation in meaningful activities due to pain after limb damage or loss has been shown to have a substantial impact on satisfaction with one's life and personal perception of overall health (Walsh et al., 2016). In addition to consequences in function, pain can be a significant concern for clients with hand trauma because appropriate pain management may lead to inappropriate coping skills such as drug or alcohol abuse (Sousa et al., 2013). It also may be important to determine if the pain is generally more psychological or physiological in nature, which may change intervention approaches used to assist the client in managing pain (Sousa et al., 2013).

Some authors looked at the unique pain associated with limb loss. According to Ephraim et al. (2005), phantom pain was the most common reported pain type of amputations, followed by residual limb pain and back pain. Amputees with residual limb pain experienced a significantly more intense pain and interference with activities compared to the other types of pain (Ephraim et al., 2005). Phantom pain prevalence was not contingent on amount of time post-amputation, as 75% of participants who were 10+ years post-amputation reported phantom limb pain. However, residual limb pain prevalence was noted to peak during the postoperative period, and decline during the following two years (Ephraim et al., 2005).

Overall, regardless of type of pain, a majority of people categorize their pain to be “somewhat bothersome” in disrupting participation in daily activities (Ephraim et al., 2005). Correlations have been found between increased level of pain and interference with daily activities and depressive symptomatology (Ephraim et al., 2005). In addition, authors of this study found that almost one third of participants had depressive symptomatology. This indicates that depression may need to be treated in conjunction to interventions related to pain management (Ephraim et al., 2005). It is critical to acknowledge that pain is a normal experience of the hand injury recovery process, and characteristics regarding pain are likely to change over time (Smurr et al., 2008).

Sleep

Disturbances in sleep may appear after a severe hand injury due to pain or nightmares from experiencing the trauma (Sousa et al., 2013). Panic attacks associated with the accident may also interfere with sleep (Sousa et al., 2013). Clients with hand trauma report that flashbacks or thoughts about the accident are likely to occur most frequently just before

falling asleep. This resulted in lack of sleep for participants. (Sousa et al., 2013). Practicing appropriate sleep hygiene techniques may be critical to help clients sleep despite hand trauma (Sousa et al., 2013). While nightmares regarding hand injury tended to decrease over time, flashbacks were still a persistent problem for 39.4% of patients 18 months after injury (Hannah, 2011).

Current Occupation-Based Interventions

According to Schier and Chan (2007), if hand injury has the potential to significantly disrupt one's ability to occupationally engage, such injuries can result in serious distress in daily life. Many individuals undergo significant changes in occupational patterns as a result of hand injury (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Impairments that limit meaningful function after limb loss are associated with poor psychosocial adjustment (Ephraim et al., 2005).

There is ample research to support the efficacy of occupation-based intervention to assist clients with the rehabilitation process after significant hand injury. Focusing on occupation throughout intervention provides a means for the therapist to easily monitor progress both physically and psychologically (Bates & Mason, 2014). Patients viewed therapy as helpful in the rehabilitation process (Schier & Chan, 2007). Repossessing a sense of independence in ADL tasks can have positive outcomes in terms of psychological recovery (Smurr et al., 2008). Providing opportunities for the client to participate in activities that he or she participated in pre-amputation can result in some of the most valuable experiences (Smurr et al., 2008). Exploration of new occupations or returning to familiar and meaningful occupations may serve as a motivating factor for clients and can assist the therapist in facilitating the rehabilitation process (Bates & Mason, 2014).

One potentially significant intervention strategy to use with clients with hand injury is finding ways to simplify occupational performance to reduce stress and frustration related to being unable to engage in meaningful activities (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Common interventions for psychological support include education about the future, reassurance of the normalcy of symptoms and amputation experience, empathetic interactions with client and family members, preventative measures to avoid negative psychological symptoms, encouragement of public outings, and assisting in learning life skills to better manage life outside the hospital as an amputee (Smurr et al., 2008). Another potentially effective intervention involves assertiveness to help the client re-establish boundaries with others in terms of expressing their feelings regarding the trauma (Sousa et al., 2013).

The focus of occupation-based intervention in a hand therapy setting requires the therapist to incorporate treatment that encompasses the whole person rather than simply a physical impairment (Colaizzi et al., 2015). Rehabilitation in which therapists use a “top-down” approach may be more successful than a “bottom-up” approach. This would require therapists to assess a client’s roles, habits, and routines before looking at more specific functional elements (Schier & Chan, 2007). Overall rehabilitative success with the hand injury population includes acquiring knowledge of the person as a whole and occupations that are important to the client (Smurr et al., 2008). In order to successfully incorporate occupation into therapy sessions, occupational therapists need to also gain an understanding of each client’s individual coping skills (Bates & Mason, 2014). With the knowledge of each client’s coping strategies, the therapist will be better able to assist and enhance the process of occupational adaptation in a client-centered manner after the occurrence of a traumatic hand

injury (Bates & Mason, 2014). Being aware of client's pre-amputation lifestyle will also give insight into possible rehabilitation goals (Smurr et al., 2008). Pre-injury factors to consider may include pre-injury family support system, physical health, emotional and cognitive abilities, education status, vocational factors, and leisure interests (Smurr et al., 2008).

Though many occupational therapists working in hand therapy settings have a desire to and see the relevance of providing treatment that addresses occupation, many have indicated that they are not confident about how to do this successfully (Colaianne et al., 2015). It is acknowledged that this holistic and occupation-based approach to treating patients with hand injury is often a complex task and individualized, which makes it a challenging process (Colaianne et al., 2015). Therapists may be able to help clients find more successful rehabilitation by assessing through conversation and questionnaires regarding details about the client's occupational performance (Schier & Chan, 2007).

One coping strategy found to be useful among individuals with significant injury included changes in strategies of performing daily occupations. Specific strategies included using other functional parts of the body to assist with activities and using objects within the environment to adapt or adaptive equipment. Participants in the study also changed to more functional clothing styles, adapted to new eating habits, and increased attention to tasks at hand to compensate (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Changes in occupational patterns also occurred to cope with hand injury (Cederlund, Thoren-Jonsson, & Dahlin, 2009). Strategies used to cope include allotting more time to complete daily activities, choosing or prioritizing different occupations, and using energy conservation techniques such as taking breaks between occupations (Cederlund, Thoren-Jonsson, & Dahlin,

2009). Participants in the study also had to adjust to asking for assistance while performing occupations due to the lack of function in the injured hand (Cederlund, Thoren-Jonsson, & Dahlin, 2009).

The effects that a hand injury has on an individual's life as a whole and the coping strategies utilized result in the varying responses to adjustment that clients may have (Hannah, 2011). Self-evaluation of one's life with their hand injury is continuously impacted by personal, cultural, and situational components of the person (Hannah, 2011). Acute hand injuries affect clients' perceived ability to perform their life roles (Hannah, 2011). Within the rehabilitation process, clients with significant hand injury should meet early-on and regularly with an occupational therapist to address changes in occupational participation and psychosocial issues due to the injury (Cederlund, Thoren-Jonsson, & Dahlin, 2009).

The Role of the Occupational Therapist

The literature suggests that occupational therapists can provide psychosocial evaluation and intervention to assist clients throughout the process of adjusting to a traumatic hand injury (Smurr et al., 2008). From a therapeutic perspective, psychosocial intervention with the traumatic hand injury population includes client and family member education, life skills interventions, and the therapeutic use of self, which are all relevant components of the occupational therapy profession (Smurr et al., 2008). Transitions from different levels of care throughout the adjustment and rehabilitation process result in psychological and emotional implications that often go unaddressed (Smurr et al., 2008).

The therapist is better able to choose the most appropriate interventions based on these pertinent psychosocial needs of the client (Schier & Chan, 2007). In addition, occupational therapists in a hand therapy setting may assist clients in understanding their

own individual means of coping and various strategies that may be beneficial based on these personal needs (Bates & Mason, 2014). Occupational therapists can develop a therapeutic alliance with clients in order to provide holistic and client-centered treatment while addressing both physical and psychosocial factors of the adjustment and rehabilitation process based on individual characteristics (Bates & Mason, 2014).

Summary

Hands are essential to an individual's overall identity as a human being. Identities are deeply rooted in one's ability to independently engage in meaningful occupations and to fulfill life roles. A review of the literature shows the importance of hands, numerous psychosocial implications related to hand trauma, and current strategies used by practitioners to address these problems. The most prevalent psychological factors related to hand injury include mood and trauma disorder symptomology, problems related to role identity, work and financial stress, issues related to social interactions and relationships, stigma, pain, and dysfunctions in sleep. In addition, both positive and maladaptive coping strategies have been identified to manage psychological distress associated with hand trauma. A review of the literature has found that adaptation, resiliency, and the overall adjustment process are a subjective and individual experience for each client (Hannah, 2011). Furthermore, there are a variety of intervention strategies available for an occupational therapist in an outpatient setting to assist clients in adjusting to issues that arise with hand injury. The identification and intervention of psychological implications will assist in successful adjustment and recovery across many consequences of sustaining a traumatic hand injury (Smurr et al., 2008).

Despite the significance of hands in day-to-day function, many therapists are criticized for addressing the physical dysfunction of the hand exclusively and disregarding

psychosocial implications (Bates & Mason, 2014). The authors created a product that will aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client's overall wellbeing and function. The first portion of the product includes a self-assessment evaluation tool that gives the client an opportunity to evaluate in which ways the hand trauma has affected functioning and overall wellbeing on a psychosocial level. The second half of the product includes intervention ideas that correlate with the psychosocial implications that were previously self-assessed by the client to give therapists ideas of how to address these factors. This two-part product allows for therapists to address psychological factors from a client-centered perspective by allowing the client to self-assess how the injury has affected his/her wellbeing within a variety of areas. In addition, therapists will be able to use the product with ease, as areas that clients have identified as troublesome will be correlated with potential intervention ideas to address the problem's specific psychosocial factors.

Authors used the Canadian Model of Occupational Performance and Engagement (CMOP-E) to guide the creation and intended use of this product to assist therapists in addressing psychosocial factors related to hand trauma. In this model, spirituality is represented at the core, with aspects of the person, environment, and occupation as surrounding layers (Turpin & Iwama, 2011). Aspects of the person that are represented in this model include cognitive, affective, and physical performance components (Turpin & Iwama, 2011). In addition, the model categorizes occupations into categories of self-care, productivity, and leisure (Turpin & Iwama, 2011). Finally, environmental concerns in relation to this model include physical, institutional, cultural, and social environments

(Turpin & Iwama, 2011). Occupation is seen as the bridge that connects the person to his/her environment (Turpin & Iwama, 2011).

The role of the occupational therapist in this model includes facilitating occupational performance and engagement through enablement and client-centered practices (Turpin & Iwama, 2011). The model promotes “client participation and power sharing as much as possible” (Craik et al., 2007, p. 251). To achieve this, therapists use aspects of the Canadian Practice Process Framework (CPPF) and Canadian Model of Client-Centered Enablement (CMCE). The CPPF guides the therapist through eight key action points to assist the client in reaching occupational participation and engagement. These eight action points include enter/initiate, set the scene, assess/evaluate, agree on objectives and plans, implement the plan, monitor or modify the plan, evaluate the outcome, and conclude/exit (Craik et al., 2007). In addition, the CMCE outlines enablement skills, which describe how therapists interact with their clients to foster a client-centered relationship (Townsend et al., 2007). The enablement skills include: adapt, advocate, coach, collaborate, consult, coordinate, design/build, educate, engage, and specialize (Townsend et al., 2007). The process outlined through the CPPF and the enablement skills promoted through the CMCE are implemented in this guide used by therapists to address psychosocial factors related to hand trauma.

CHAPTER III

Methodology

The product, *Assisting Clients with Psychosocial adjustment after sustainment of a Traumatic Hand Injury: A Therapist's Guide*, was created to aid therapists in evaluating and treating psychological factors commonly related to hand injury that could have consequences on a client's overall wellbeing and function. The authors of this product used the Canadian Model of Occupational Performance and Engagement (CMOP-E) to guide the creation and intended use of this product. To achieve this, aspects of the Canadian Practice Process Framework (CPPF) and Canadian Model of Client-Centered Enablement (CMCE) were considered. Authors used the framework and enablement skills provided by this theoretical model to assist with both the development of the product and guide therapists with its use. A detailed description of appropriate use of the process framework and enablement skills can be found in the guiding theory section of the product located in Chapter IV.

A review of the literature was conducted through scientific databases provided by the Henry E. French Library of Health Sciences. Databases used include PubMed, OT Search, CINAHL, and PsychInfo. The following search terms were utilized to conduct the literature review: "upper extremity", "upper extremity injury", "upper extremity trauma", "upper limb", "upper limb injury", "upper limb trauma", "psychological implications", "psychological intervention", "psychological factors", "psychosocial implications", "psychosocial intervention", "psychosocial factors", "occupational therapy", and "rehabilitation". Peer-reviewed and evidence-based articles of qualitative and quantitative

nature were used in the development of the product. As a result of the literature review, current evaluation approaches used to address psychosocial dysfunction were among findings. In addition, the literature review revealed common psychosocial implications experienced as a result of hand injury. Current evaluation approaches and common psychosocial implications were used with the framework of the CMOP-E to develop the product to aid therapists in addressing such factors.

CHAPTER IV

Assisting Clients with Psychosocial Adjustment After Sustainment of a Traumatic Hand Injury: A Therapist's Guide



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An Introduction to the Guide

This product was created to assist therapists in evaluating and treating psychosocial implications related to significant hand trauma with clients in outpatient hand therapy settings. For the purposes of this product, significant hand injuries include a trauma related to the damage of bone, tendon, or nerve.¹ In addition, soft tissue damage, loss, or amputation of the hand are also considered significant hand injury.¹ Along with structural damage, trauma alludes to sudden or unexpected injury to one's hand, which impedes engagement in meaningful occupations. Hands are essential to an individual's overall identity as a human being.¹ Identities are deeply rooted in one's ability to independently engage in meaningful occupations and to fulfill life roles. A review of the literature shows the importance of hands, numerous psychosocial implications related to hand injuries, and current strategies used by practitioners to address these problems.

The most prevalent psychological factors related to hand injuries include mood and trauma disorder symptomatology, problems related to role identity, work and financial stress, issues related to social interactions and relationships, stigma, pain, and dysfunctions in sleep. In addition, both positive and maladaptive coping strategies have been identified to manage psychological distress associated with hand trauma. A review of the literature has found that adaptation, resiliency, and the overall adjustment process are a subjective and individual experience for each client.² Furthermore, there are a variety of intervention strategies available for an occupational therapist in an outpatient setting to assist clients in adjusting to issues that arise with hand injury. The identification and intervention of psychological implications will assist in successful adjustment and recovery across many consequences of sustaining a hand injury.³

Despite the significance of hands in day-to-day function, many therapists are criticized for addressing the physical dysfunction of the hand exclusively and disregarding psychosocial implications.¹ The authors created a product that will aid therapists in evaluating and treating psychological factors commonly related to hand injury that could affect a client's overall well being and function. The first portion of the product includes a self-assessment evaluation tool that will give the client an opportunity to evaluate the ways that hand injury has affected functioning on a psychosocial level. The second half of the product includes intervention proposals that correlate with the psychosocial implications that were previously self-assessed by the client to give therapists ideas of how to address these factors. This two-part product will allow for therapists to address psychological factors from a client-centered perspective by allowing the client to self-assess how the injury has affected his/her well-being within a variety of areas. In addition, therapists will be able to use the product with ease because areas that clients have identified as troublesome will correspond to potential intervention ideas used to address the specific problematic psychosocial factors.

Guiding Theory

The authors of this product used the Canadian Model of Occupational Performance and Engagement (CMOP-E) to guide the creation and intended use of this product to assist therapists in addressing psychosocial factors related to hand trauma. Occupation is seen as the bridge that connects the person to his/her environment.⁴ The role of the occupational therapist in this model includes facilitating occupational performance and engagement through enablement and client-centered practices.⁴ The model promotes “client participation and power sharing as much as possible” (Craig et al., 2007, p. 251). To achieve this, therapists use aspects of the Canadian Practice Process Framework (CPPF) and Canadian Model of Client-Centered Enablement (CMCE).

The CPPF guides the therapist through eight key action points to assist the client in reaching occupational participation and engagement.⁵ These eight action points include the following:

- **Enter/initiate:** This is the first stage of contact with the client. The client is identified and it is determined if occupational therapy is an appropriate referral.
- **Set the scene:** The therapist and client build a collaborative relationship by establishing rapport and setting expectations.
- **Assess/evaluate:** This stage includes an evaluation of aspects of the person, environment, and occupation. These aspects are then analyzed to recognize in what ways factors are influencing occupational performance and engagement.
- **Agree on objectives and plans:** Using a collaborative relationship, both the client and therapist discuss goals of what the client hopes to achieve from an

occupational engagement perspective. In addition, the therapist and client develop a plan to reach agreed objectives.

- **Implement the plan:** This stage involves carrying out the plan agreed upon in the previous stage. Enablement skills are intentionally used to guide interaction between the client and the therapist to promote client-centered practice and power-sharing.
- **Monitor or modify the plan:** The plan is evaluated to ensure that it is progressing appropriately. The plan is modified or redesigned if it is not helpful in reaching the client's developed goals. Both the therapist and client should approve this change in the plan.
- **Evaluate the outcome:** In this stage, outcomes related to occupational goals are reevaluated. This is to determine if goals have been reached or if there are still significant occupational issues.
- **Conclude/exit:** A mutual end of the client-therapist relationship is established. The client and therapist discuss appropriate referrals and a discharge summary is produced.

Additionally, the CMCE outlines enablement skills, which describe how therapists interact with their clients to foster a client-centered relationship.⁶ The enablement skills offered by this product include the following:

- **Adapt:** Providing opportunities for the client to engage in occupations by altering the environment or occupations to fit issues associated with occupational engagement.

- **Advocate:** Raising awareness of common issues related to occupational engagement to key decision makers and those who have power to create change on behalf of or with the client.
- **Coach:** Assisting clients in reflecting and recognizing their motivation in meaningful occupations to enhance occupational engagement through conversation.
- **Collaborate:** Placing emphasis on power-sharing by therapists working with clients to address occupational needs and promote occupational engagement.
- **Consult:** Seeking experts outside of the client-therapist relationship to exchange knowledge and gain additional perspective associated with issues in occupational engagement.
- **Coordinate:** Creating interactions between the client and outside resources (such as information, organizations, or services) to facilitate occupational engagement.
- **Design/build:** Connecting the client with materials to assist in adaptation, which will facilitate occupational engagement. Examples of products include assistive technology or orthotics.
- **Educate:** Assisting the client in understanding pertinent information through educational principles. This is often achieved through active occupational engagement, which is used to process learned material.
- **Engage:** Encouraging the client to actively participate in occupation from a client-centered perspective through participation of the therapist or others.

- **Specialize:** Using specific techniques to give clients the skills to actively engage in occupations.

In this model, spirituality is represented at the core, with aspects of the person, environment, and occupation as surrounding layers.⁴ Components of the person represented in this model include cognitive, affective, and physical performance.⁴ The model categorizes occupations into the categories of self-care, productivity, and leisure.⁴ Finally, environmental concerns in relation to this model include physical, institutional, cultural, and social contexts.⁴ The process outlined through the CPPF and the enablement skills promoted through the CMCE are implemented in this guide and used by therapists to address psychosocial factors related to hand trauma.

Evaluation Process



itsnotwhatitswhy.wordpress.com

Introduction to the Evaluation Process

As previously stated, the first portion of the guide encompasses the evaluation tool, which contains a brief screen to assess the client for common adjustment issues related to sustaining a hand injury. The initial portion of the product guides the therapist through the first four action points of the therapeutic process as offered by the CMOP-E.⁵ The enter/initiate stage requires the therapist to make contact with the client and collaboratively determine if addressing psychosocial implications is an appropriate step in the client's therapy process.⁵ Next, therapists set the scene by giving the client permission to discuss potential issues of adjustment by providing a safe and nonthreatening environment.⁵ During this stage, additional rapport is built, which further enhances the collaborative relationship between the therapist and client.⁵ The assess/evaluate stage involves the client participating in the screen and any further discussion with the therapist as needed in order to address various psychosocial aspects of the client shaped by his/her hand injury.⁵ In the last stage, the therapist and client agree on objectives and a plan to reach them.⁵ The therapist and client collaborate to develop goals that will help address adjustment issues indicated by the screen or additional psychological concerns raised by the client.⁵ Action points 5-8 will be incorporated in the second portion of this product, which addresses intervention.

The screen contains eight sections of questions that were carefully selected by the authors of the product to address the most common issues related to hand injury adjustment, based on a review of the literature. The first section analyzes general aspects of the client such as roles, habits, routines, and the importance placed on independence. The sections that follow include questions related to role identity and adjustments, work and financial stress, stigma and social isolation, sexuality and

intimate relationships, maladaptive responses, pain, and sleep. The questions are closed-ended, prompting the client to circle 'yes' or 'no' based on his or her experience related to the injury. The evaluation screen displays 4-5 questions under each of the previously stated sections in order to provide a holistic view of the client regarding his or her hand injury. In addition, a space was created under each section of questions for the therapist to acquire further information from the client and take notes if applicable.

The last section of the evaluation tool provides a page in which the therapist and client can collaborate to create goals. This collaborative approach to setting goals will ensure client-centeredness during the therapy process and promote occupational engagement by addressing psychosocial issues related to hand injury. The format of the evaluation tool allows for a comprehensive outline of the common adjustment issues experienced by this population. The brevity of the assessment was intentional for practitioners to use the tool with ease, supporting its efficient nature.

Psychosocial issues are a normal and expected response to significant hand injury.² However, issues related to adjustment generally begin to resolve by three months post-injury.² If difficulties with adjustment do not resolve by this time, it is possible that these elements may be impeding occupational engagement. Thus, the client may require additional support through the assessment and intervention of psychosocial support. However, the clinician may initiate use of the assessment tool at his or her discretion as adjustment difficulties are discussed with the client or noted by the therapist. The evaluation tool may also be utilized for the purposes of initial assessment and/or reassessment throughout the treatment process as needed.

Hand Trauma Adjustment Screening Tool



<http://acdd.org/>

You are taking this screen because you have recently suffered a severe injury of your hand. It is likely that this injury has affected your life in many ways. You have had to make a lot of physical changes to continue to do the things you want to do. It is also common to experience some problems with mental health and adjustment to your injury. While looking through the questions you may have negative feelings, but it is important to know that stress is common while managing these changes. Please do not hesitate to ask your providers if you have any questions, as we are here to help you.

Below is a short screening tool that will give you and your treatment team a better understanding of how to help you cope with these changes. You may choose to complete this screen verbally with your provider or on your own through written responses to the questions. Please answer the questions based on what you have been experiencing since the injury occurred.

Name: _____ Date of Birth: ____/____/____

Date of Assessment: ____/____/____

Reassessment Date: ____/____/____

Therapist Name: _____

General Information:

What did a typical day consist of prior to your hand injury?

What does a typical day consist of after your injury?

What are your current life roles (parent, friend, worker, etc.)?

On a scale from 1-10, how important is it for you to be independent in your daily routine?
(1=not important at all, 10=extremely important)

Role Identity and Adjustments

Since your injury...

Have you felt unsatisfied with your ability to fulfill activities related to your roles (parent, student, friend, etc.)? ⁷	Yes	No	N/A
Have you had significant changes in your routine that are unsatisfying to you (Needing additional time, assistance from others, etc.)? ¹	Yes	No	N/A
Have you felt a loss of independence as a result of depending on others? ⁷	Yes	No	N/A
Have you felt down or depressed related to changes in roles? ⁷	Yes	No	N/A
Have you experienced anxiousness related to changes in roles? ⁷	Yes	No	N/A

Additional Notes:

Work and Financial Stress

Since your injury...

Have you felt overwhelmed by financial obligations while being away from work? ²	Yes	No	N/A
If your injury occurred at work, have you avoided going back to work? ⁸	Yes	No	N/A
Have you felt down or depressed due to time away from work? ²	Yes	No	N/A
Have you experienced anxiousness related to time away from work? ²	Yes	No	N/A

Additional Notes:

Sexuality and Intimate Relationships

Since your injury...

Have you had any concerns about engaging in sexual activity since sustaining your hand injury? ⁷	Yes	No	N/A
Have you experienced unsatisfactory changes in your relationships with others? ²	Yes	No	N/A
Have you felt down or depressed due to changes in sexual activity or when pursuing intimate relationships? ²	Yes	No	N/A
Have you experienced anxiousness due to changes in sexual activity or when pursuing intimate relationships? ²	Yes	No	N/A

Additional Notes:

Social Isolation/Stigma

Since your injury...

Have you felt self-conscious about the appearance of the injury in social situations? ⁸	Yes	No	N/A
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Have you decreased involvement in or avoided social settings because of your injury? ²	Yes	No	N/A
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Have you feared what others may think of the traumatic event or injury? ⁸	Yes	No	N/A
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Have you felt down or depressed due to changes in your social life? ²	Yes	No	N/A
--	-----	----	-----

Have you experienced anxiousness related to changes in your social life? ⁸	Yes	No	N/A
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Additional Notes:

Maladaptive Responses

Since your injury...

Have you noticed an increase in drug or alcohol use to cope with physical or psychological changes resulting from your injury?⁸

Yes No N/A

Have you experienced difficulty processing the traumatic event (avoiding thinking about it or talking about it with others, avoiding reminders of the event, etc.)?⁹

Yes No N/A

Have you experienced feelings of guilt related to the traumatic event?¹

Yes No N/A

Have you found yourself avoiding or denying that the event/injury occurred?²

Yes No N/A

Additional Notes:

Pain

Since your injury...

Have you been experiencing pain that has inhibited your ability to focus on routine and daily activities? ¹⁰	Yes	No	N/A
Have you found yourself avoiding or restricting your involvement in meaningful activities as a result of pain related to your injury? ¹⁰	Yes	No	N/A
Have you felt down or depressed due to the amount of pain you are experiencing? ¹²	Yes	No	N/A
Have you experienced anxiousness due to the amount of pain you are experiencing? ¹²	Yes	No	N/A

Additional Notes:

Sleep

Since your injury...

Have you experienced any difficulty falling asleep or staying asleep due to pain? ⁸	Yes	No	N/A
Have you had difficulty falling asleep or staying asleep as a result of flashbacks or nightmares related to your injury? ⁸	Yes	No	N/A
Have you felt down or depressed due to difficulty sleeping? ⁸	Yes	No	N/A
Have you experienced anxiousness due to difficulty sleeping? ⁸	Yes	No	N/A

Additional Notes:

Goal-Setting

Psychosocial Area #1: _____

Goal 1: _____

Goal 2: _____

Intervention Ideas: _____

Psychosocial Area #2: _____

Goal 1: _____

Goal 2: _____

Intervention Ideas: _____

Psychosocial Area #3: _____

Goal 1: _____

Goal 2: _____

Intervention Ideas: _____

Intervention Process



Introduction to Intervention Process

The second portion of the guide is an intervention tool. The intervention tool proposes treatment ideas to address each psychosocial area incorporated in the assessment. During this portion of the guide, therapists will use the CMOP-E to guide through the final four action points of the therapeutic process.⁵ The fifth stage involves the therapist and client implementing the plan previously agreed upon.⁵ During this stage, the therapist is encouraged to intentionally use enablement skills to promote client-centered practices and power-sharing with the client.⁵ Descriptions of these enablement skills can be found on pages 6 and 7 of this guide. Next, the client and therapist modify or redesign the plan if the client deems necessary or goals are not being meant.⁵ Both the therapist and client should approve any changes made to the plan.⁵ Subsequently, the therapist and client collaboratively evaluate the outcomes and determine if occupational engagement is satisfactory to the client.⁵ Finally, when goals and occupational engagement are achieved, a mutual end of the therapeutic relationship is established and a discharge plan is developed.⁵ If the client or therapist does not feel that psychosocial implications were addressed appropriately or occupational engagement was not achieved to the client's satisfaction, additional referrals to psychiatric services should be made.

The intervention portion of the guide proposes treatment ideas to address each psychosocial area identified in the assessment. Psychosocial areas include role identity and adjustments, work and financial stress, social isolation and stigma, sexuality and intimate relationships, maladaptive responses, pain, and sleep. Relevant literature related to each psychosocial area is placed at the beginning of every section. This information, titled “Pointers for the Practitioner” gives the therapist an understanding of

the psychosocial topic related to hand injury. Each psychosocial area contains resources and tools for the therapists and client. Resource titles containing the phrase “Client Engagement” are tools and activities specifically for the use of the client. Some client engagement portions are similar to worksheets. If clients have difficulty with fine motor skills, these activities can be adapted as conversation pieces, or an activity in which the therapist writes for the client. The psychosocial interventions provided in this guide may be used in conjunction with physical interventions.

Role Identity and Adjustments



<http://www.thenzbf.co.nz/>



Pointers for the Practitioner:

- Hand trauma can have a significant impact on the roles and identity of an individual. This could include changes in life roles, daily patterns, routines, and occupational engagement.⁷
- Clients commonly feel inclined to adapt habits and roles related to the occupations in which they engaged prior to sustainment of a major hand injury. This adaptation process may even include termination of meaningful habits, roles, or occupations altogether.¹
- Significant hand injury can result in role reversal, as the human hand is essential to overall independence and caregiving tasks.⁷ As role changes and activity termination often increase feelings of functional loss, individuals experience a loss of their personal identities, decrease in self-esteem, and feel a sense of inadequacy.²
- *Enablement skills* that may be appropriate to use in this section include *collaborating* to solve problems, *coaching* the client on how to use adaptive equipment, and *coordinate* the client with resources to purchase adaptive equipment.

Problem Solving Through Role Adjustments with Your Client

Your clients may be experiencing difficulties with role adjustments and identity after their injury. They may find more success in adjusting to role changes by modifying activities that relate closely to the demands of their roles.⁷

- Facilitating participation in meaningful activities through means of modification, compensation, and adaptation will enhance and ensure that a sense of role identity is maintained throughout the recovery process.² The following is a list of approaches and examples that may assist with problem solving:



<http://www.accaglobal.com>

- Suggest to your client that additional time may be required to complete many different types of tasks
- Activities related to his or her roles may need to be simplified or altered
- The use of adaptive equipment to complete daily routines independently may be helpful for your client
- Communicate to your client that it is normal to ask others for help to complete tasks as needed

Client Engagement: Problem Solving While Adjusting to Your Injury*



<https://www.timeshighereducation.com/content/>

It is likely that you are experiencing many changes in your life as a result of your injury. These changes could include adjustments within life roles and routines. For example, you may find that getting ready in the morning takes more time or requires assistance from others, or activities at your job that were once easy are now challenging. This tool may help you solve problems related to your roles or routines.

Role or Routine: _____

Define the problems within this role (what activities are challenging?):

Brainstorm possible solutions:

1. _____
2. _____
3. _____

Evaluate each solution (pros and cons to each solution):

1. _____

2. _____

3. _____

Arrive at a plan (which solutions will you use?):

Start the plan (what will you need?):

Notes for next time:

*Adapted from Davis, 2008

Helping Your Client Find Adaptive Equipment



<http://www.parrytherapytucson.com/insurance.php>

Adaptive equipment is beneficial in assisting your clients after a traumatic hand injury and you may find it helpful to have a list of these resources at your convenience. The following is a list of websites or resources that may assist you in selecting the appropriate equipment for your client.

- **AOTA's OT Practice Buyer's Guide:**

http://www.nxtbook.com/nxtbooks/aota/otpractice_buyersguide2016/index.php#/1

- **American Society of Hand Therapists Vendor Marketplace:**

<https://www.asht.org/practice/vendor-marketplace>

- **RehabMart:**

http://www.rehabmart.com/category/daily_living_aids.htm

- **Maddak Aids for Daily Living:**

<http://www.maddak.com/index.php>

Work and Financial Stress



<http://fineartamerica.com/featured/>



Pointers for the Practitioner:

- The role of being a worker connects an individual to the larger society, and can be threatened by a hand injury.⁷ Sudden loss or changes in one's ability to perform in their role as a worker may lead to decreased self-esteem and changes in finances.²
- Work avoidance is a possible symptom related to injury, and the likelihood of work avoidance is greater if the injury occurred at work.⁸
- Hand injuries that prevent one's ability to work can affect financial security.⁷ Lack of financial security can impact family social status and participation in events that once held meaning such as vacations, sports, and other extracurricular activities.²
- *Enablement skills* that may be appropriate to use in this section include *coaching* the client on the technique of visualization to prepare for returning to work, and *educating* the client regarding different physical and psychosocial modifications for returning to work.

Assisting Your Client in Developing Modifications for Returning to Work

An intervention that would provide support and assistance with adjustment of the worker role after sustainment of a major hand injury is work modification.² This document provides a list of resources and ideas to assist your clients throughout this process. The following is a list of physical and psychological modifications that may be helpful:

Physical and psychological modifications:



<http://blog.specialcounsel.com/>

Therapists may find it beneficial to observe the client's workplace. If an observation is not appropriate, a discussion of the workplace with the client is suggested. Upon observation or discussion, the therapist may provide suggestions for the client to continue performing work-related duties accordingly, such as:

- **Adaptive equipment**
 - Examples include: built-up handles, reachers, protective gloves, orthotics/prosthetics, and splints
- **Energy conservation techniques and compensatory strategies**
 - Examples include: frequent breaks, distribution of high energy tasks, asking for assistance, using the opposite hand, and placing frequently used objects strategically for ease of use

- **Changes in work routine**

- Examples include: delegating tasks to others, changing work hours, and eliminating non-essential tasks within the work day

Additional Notes:

Financial Stress:

In addition to work modifications, clients may be under significant financial stress related to time away from work.² It may be appropriate to assist the client in applying for additional means of financial support such as worker's compensation or short-term disability options.

Client Engagement: Reducing Fears of Returning to Work Through Visualization*

It is possible you may be experiencing discomfort, such as anxiety or fear, about going back to work since your hand injury.⁸ These feelings could occur in a variety of situations: when thinking about your ability to perform activities at your job, re-injuring your hand, or possible conversations about your injury with others. If you are experiencing discomfort, visualization may help to reduce these feelings before you go back to work. After you learn the skill of visualization, it may be helpful to close your eyes during this exercise. To practice visualization, use the following steps:

1. Relax for 5-10 minutes in a comfortable and familiar environment until you feel calm and safe.

2. Imagine your entire workday experience. This could include:

- Walking into your workplace
- Activities associated with your job
- Socializing with coworkers
- Leaving the workplace



Sleep-cure.com

3. Try to imagine your workday in “scenes”, as if you are watching a movie. During each scene, use deep breathing to relax. If deep breathing does not work for you, ask your therapist for additional coping ideas.

4. While imagining your workday, it is important to note any parts of your experience that make you anxious. These will be important to address before you return to work. Space is provided for you to make note of these aspects below:

*Adapted from Davis, 2008

Sexuality and Intimate Relationships



<http://www.shivaazimi-art.blogfa.com/>



Pointers for the Practitioner:

- Hands play a major role in the expression of intimacy by conveying feelings, emotions, and sexuality.² Changes in sexual desire and response may be affected by shame in appearance of injured hand and uncomfortable clumsiness during sexual acts.⁸
- In relationships, individuals may begin to experience feelings of vulnerability and stress of being a “burden” due to dependency on others after the trauma.⁸ In addition, significant others may resent extra responsibilities taken on due to his/her spouse’s injury.⁸
- *Enablement skills* that may be appropriate to use in this section include *educating* the client regarding issues of sexuality or assisting the client in seeking a *consult* from a specialized discipline.

Using the PLISSIT Model to Address Issues of Sexuality with Your Client*



<http://www.lifehack.org/355489/>

It is possible that your client may be experiencing distress related to sexual functioning and intimate relationships after a significant hand trauma. The PLISSIT model may be a helpful tool when addressing sexuality with your client.¹¹ The word PLISSIT is an acronym that indicates actions for the therapists to take when addressing such issues. The following is an outline of the model in relation to clients with significant hand injuries:

- **Permission:** entails giving the client permission to express difficulties with sexual intimacy. It is important to note that many sexual or intimate issues can be exacerbated through guilt, anxiety, etc. These are all symptoms that your client may be experiencing as a result of hand injury.
- **Limited Information:** entails the therapist sharing general anatomical and physiological information related to sexual issues with the client. It is anticipated that this level of information will be sufficient in thoroughly addressing the client's concerns.

- **Specific Suggestions:** involves therapists giving practical recommendations regarding sexual difficulties. It is important to note that not all therapists will be comfortable giving specific suggestions to clients, but it is within the scope of practice to do so.
- **Intensive Therapy:** requires the client to receive long-term intervention related to sexual difficulties. Unless additional training or certification is obtained, therapists should refer the client to specialized services to address these factors.

Additional Notes:

*Adapted from Annon, 1976

Stigma and Social Isolation



<https://stormwisdom.com/wp-content/>



Pointers for the Practitioner:

- There are many social adjustments that commonly take place after a hand injury including acceptance of a certain degree of dependence on others, social stigma, and a new body image.²
- Individuals with significant hand injuries become acutely aware of how others perceive their body image in social environments, which could result in social isolation or hiding of the hand.²
- The perceived stigma that is often associated with psychological distress results in the hesitancy that clients have in discussing or addressing the psychological problems they are experiencing.² Others' attempts to help the individual with hand trauma brings further attention to occupational performance lost via the injury, and results in increased feelings of stigma and social isolation.⁷
- *Enablement skills* that may be appropriate to use in this section include *coaching* the client in problem-solving strategies, encouraging the client to practice *advocating* for his or her needs, and motivating the client to actively *engage* in social participation.

Client Engagement: Taking Care of Yourself by Setting Boundaries*



<http://www.psychmechanics.com/2014/09/>

Becoming confident in your ability to set boundaries will help you in many situations. For example, setting boundaries can help you tell others when you do not want to talk about your injury, or let others know when you need help with something.² These statements work best if you keep them short and direct. The following is a formula and example to help you create firm statements:

1. **Describe** the facts of the situation without judgment or blame
 - Someone is asking personal questions about my injury. I don't blame them for being curious, but I do not want to talk about it anymore.
2. **Express** your feelings using "I feel" statements
 - I feel uncomfortable.
3. **State** what you want and be specific
 - I would rather not talk about my injury at this time.
4. **Think** of the benefits
 - a. We could talk about something that we are both interested in.

Statement: "You are asking me a personal questions about my injury. I don't blame you for being curious, but I feel uncomfortable. I would rather not talk about my injury anymore. Let's talk about something we're both interested in."

There is a place for you to make your own example on the next page.

1. **Describe** the facts of the situation without judgment or blame

➤ _____

2. **Express** your feelings using “I feel” statements

➤ _____

3. **State** what you want and be specific

➤ _____

4. **Think** of the benefits

➤ _____

*Adapted from Lemsy et al., 2005

Client Engagement: Taking Care of Yourself by Setting Boundaries with Loved Ones*

<https://pixabay.com/en>



Becoming confident in your ability to set boundaries with loved ones after your injury maybe difficult at first.² For example, they might ask a lot of questions about your injury or try to help you with things you may not need help with. Practicing how to have these conversations may also

help you feel more prepared. Below is a guide to help you plan and prepare:

1. **Set up** a time to have the conversation

2. **State** what the problem is

3. **Express** how the problem makes you feel

4. **Make** specific requests of you loved ones

5. **Reinforce** what you want to happen

*Adapted from Lemsky et al., 2005

Client Engagement: Stressful Event Ladder*

It is important to know that social isolation is a natural response to having a significant hand injury.⁸ However, social isolation can be stressful. Some people find that using the hand in some social situations results in more stress than others. Beginning to use your hand in less stressful situations at first may lead to more confidence in using your hand in more stressful social situations.⁸ A few key concepts in creating a “stressful events ladder” are listed below:



<http://eduscapes.com/marke>

- Start by creating a list of social situations that cause feelings of anxiousness or discomfort when you think about using your hand
- Then, rank these situations from the least to the most anxiety-provoking.
- Finally, work your way up your “stressful events ladder” by using your hand in the situations you listed starting from the least to the most anxiety-provoking.

The worksheet on the following page may be helpful in organizing your stressful events ladder. You may be interested in learning ways to deal with stress while in these situations. If you are, ask your therapist to see the worksheet titled “*Client Engagement: Coping with your Injury*” located on page 54 of this guide.

Stressful-Events Ranking Worksheet

Rank	Description of Event	Date Completed

*Adapted from Davis, 2008

Client Engagement: How to Counteract Irrational Thoughts*

Your thoughts can have a big impact on how you adjust with your injury.² While having irrational thoughts about your injury is normal, it may be beneficial to learn how to reduce these thoughts so they don't intrude on your everyday life. The following activity may be appropriate in helping relieve these irrational thoughts.



<http://www.authentic-life.net/>

1. ***Write the facts*** about the event that is causing your irrational thought

2. ***Write your judgments***, beliefs, and assumptions about the event causing your irrational thought

3. ***Describe*** your emotional response ("I feel...")

4. ***Begin to dispute*** the irrational thought:

a. Select the thought you would like to change

b. What is the evidence that this thought is true?

c. What is the evidence that this thought is untrue?

d. What are the consequences of having this irrational thought?

e. What positive results could occur after eliminating the thought?

f. Change irrational talk to positive self-talk

*Adapted from Davis, 2008

Client Engagement: Positive Self-Talk*

Your hand injury may have you thinking negatively about your ability to engage in daily activities, such as socialization.⁹ Replacing negative thoughts with positive self-talk will increase your confidence throughout these daily activities. Below is an example outline of different ways you can remind yourself to stay positive in your everyday life.

Situation	Negative Self-Talk	Positive Self-Talk
Example: speaking to someone new about my injury	"He/she will laugh and judge me for my injury."	"I am great, despite my injury and what other people think."

*Adapted from Lemsky et al., 2005

Maladaptive Responses



<http://keywordsuggest.org/>



Pointers for the Practitioner:

- The adaptation process after a traumatic hand injury, in regards to coping, varies continuously throughout recovery and is largely based on personal experiences.¹ When evaluating coping strategies, drug or alcohol use may be used to control physical or psychological pain, which is a maladaptive response to the stress of the injury.⁸
- In order to cope with an injured hand, individuals may begin avoiding various occupations including sexual activities, social situations, and/or driving. Habits of avoidance and denial of problems related to participating in meaningful activities should be addressed during routine care of clients.⁹
- Common emotional responses individuals experience after sustaining a traumatic injury to the hand are anger, guilt, and frustration.¹ After sustainment of a traumatic hand injury, disengaging strategies such as distancing, believing the worst, emotional avoidance, and perceived helplessness are also common responses and are associated with difficult adjustment.²
- *Enablement skills* that may be appropriate to use in this section include *collaborating* to discover current methods of coping and to *educate* the client regarding appropriate coping strategies to practice.

Identifying How Your Client Copes

Individual responses to trauma, such as experiencing a major hand injury, vary greatly depending on self-evaluation of how the injury will impact the person's overall quality of life and the skills in which they use to cope with this evaluation process.²

Short-term coping strategies include:

- ❖ Avoidance of the truth
- ❖ Processing the traumatic event that resulted in injury
- ❖ Searching for social and emotional support
- ❖ Efforts to regain control of everyday life

Long-term coping strategies include:

- ❖ Acceptance of the injury
- ❖ Resignation of the rehabilitation process
- ❖ Complete adjustment of occupational roles, habits, and routines

It is imperative for therapists to identify and understand which coping strategies are likely to be utilized by each individual client throughout each stage of the rehabilitation and adaptation process, as certain strategies may facilitate adjustment while others may be detrimental depending on the situation.² In addition, it's important to acknowledge the value your client places on independence in his or her everyday life. Your client's coping preferences will be impacted by his or her value of independence in daily activities.

Client Engagement: Coping with Your Injury

<http://www.wallpapername.com>



Using coping strategies may help you manage stress that is happening because of your injury.¹ You may find yourself using positive or negative coping strategies. Negative coping strategies may be harmful to your overall well-being. Some examples of negative

coping strategies include using drugs or alcohol, or avoiding activities that you once loved doing. The following are a list of positive coping strategies², with some space for you to brainstorm additional strategies with your therapist:

- ❖ Prioritizing occupations: put the most important activities in your life first.
- ❖ Giving yourself more time: allow more time in your day to complete activities to avoid frustration
- ❖ Simplify occupations: simplifying what you do each day may help you save time and energy so you can participate in many activities
- ❖ Optimistic thinking: remaining positive will increase your mood and allow you to think more clearly about your injury
- ❖ Social supports: it is OK to ask others for physical and emotional help
- ❖ Problem-solving independently: while asking for help from others is encouraged, you may find it beneficial to tackle problems on your own first
- ❖ Trying new occupations: if some of your occupations are challenging now, it may be appropriate to try something new

- ❖ Taking care of yourself: participate in healthy activities that make you feel good and increase your overall well-being

- ❖ _____
- ❖ _____
- ❖ _____
- ❖ _____
- ❖ _____

Pain



<http://www.massageinflorida.com/aromatherapy.html>



Pointers for the Practitioner:

- Individuals with trauma-related hand injuries often undergo persistent and distressing pain that interferes with daily activities and routines.¹⁰ Decreased participation in meaningful activities has been shown to have a substantial impact on satisfaction with one's life and personal perception of overall health.¹⁰
- Drug or alcohol abuse may be used as a means of pain management and may lead to inappropriate coping skills.⁸ It is also important to determine if the pain is generally more psychological or physiological in nature.⁸
- There may be pain considerations that are unique to hand amputations. Phantom pain is the most commonly reported type of pain for individuals experiencing limb loss, followed by residual limb pain.¹²
- *Enablement skills* that may be appropriate to use in this section include *collaborating* with the client about the pain he or she is experiencing, *educating* the client about integrative ideas for managing pain, and assisting the client in *consulting* with specialized disciplines associated with integrative pain management.

*Client Engagement: Integrative Pain Management Ideas**



<http://www.foxnews.com/health>

There have been many alternative methods to managing pain that individuals with injuries have found to be effective. Along with the steps you currently take to manage pain, the following techniques and resources may be helpful in reducing your pain:

- Acupuncture
 - <http://www.mayoclinic.org/tests-procedures/acupuncture/basics/definition/prc-20020778>
 - <https://nccih.nih.gov/health/acupuncture/introduction>
- Massage Therapy
 - <https://nccih.nih.gov/health/massage/massageintroduction.htm>
- Meditation
 - <http://www.how-to-meditate.org/>
 - <https://zenhabits.net/meditation-guide/>

- <http://www.mayoclinic.org/tests-procedures/meditation/in-depth/meditation/art-20045858>
- Aromatherapy
 - <https://naha.org/explore-aromatherapy/about-aromatherapy/what-is-aromatherapy/>
 - <http://www.aromatherapy.com/>
- Tai Chi
 - <http://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/tai-chi/art-20045184>
- Qi Gong
 - <http://nqa.org/about-nqa/what-is-qigong/>
- Yoga
 - <http://www.mayoclinic.org/healthy-lifestyle/stress-management/multimedia/yoga/vid-20084706>
- Reiki
 - <http://www.reiki.org/faq/whatisreiki.html>
- Healthy diet
 - https://www.cdc.gov/healthyweight/healthy_eating/
 - <http://www.who.int/mediacentre/factsheets/fs394/en/>

*Adapted from the US Department of Health and Human Services

Sleep



<http://www.bystephanielynn.com/2013/06/backyard>



Pointers for the Practitioner:

- Disturbances in sleep may appear after a severe hand injury due to pain, or nightmares from experiencing the trauma of the injury.⁸
- Panic attacks associated with the accident may also interfere with sleep.⁸ Clients with hand trauma report that just before falling asleep they experience flashbacks or thoughts about the accident which prevents sleep.⁸
- While nightmares regarding hand injury tend to decrease over time, flashbacks are still a persistent problem for 39.4% of patients 18 months after the injury occurs.²
- *Enablement skills* that may be appropriate to use in this section include assisting the client in *adapting* his or her sleep routine and *educating* the client regarding relaxation techniques.

Client Engagement: Changing Your Sleep Routine*

<http://www.preapps.com/blog/7-top-sleep-tracking->



Your sleep routine may have changed since your injury. Making sure to stick to a consistent sleep routine may be helpful so that you can fall asleep and stay asleep. The following are some helpful tips that you can use to improve your sleep routine:

- ✓ Go to bed and wake up at the same time each day
- ✓ Avoid caffeine and other substances near bedtime to avoid trouble falling or staying asleep
- ✓ Follow the same routine to tell your body when it is near bedtime
- ✓ Make sure you are comfortable. This means something different for everyone, but it could mean:
 - Sleeping in a dark, quiet, and cool space
 - Using items to control sound, such as earplugs or a fan
 - Choosing a sleeping surface and pillow that are comfortable
- ✓ Limit the amount of naps you take
- ✓ Incorporate physical activity in your everyday routine
- ✓ Engage in activities to manage everyday stress

*Adapted from Mayo Clinic Staff, 2014

Client Engagement: Relaxation Techniques*

Relaxation techniques can be used if you are having problems falling or staying asleep due to stress.⁸ Examples of relaxation techniques include deep breathing, autogenic relaxation, and progressive muscle relaxation. The relaxation techniques learned in this activity may also be used as positive coping strategies. The following are basic explanations of relaxation, with resources for you to practice:

1. Deep breathing:

- a. Deep breathing is a simple technique you can use to relax before fall asleep.
- b. Some people find the most relaxing breaths to come from their abdomen rather than their chest. So, it may be beneficial to place one hand on your abdomen to keep track of your breaths
- c. Lie down on your back in a comfortable position
- d. Exhale first
- e. Inhale through your nose slowly while counting to three
- f. Pause a second, then exhale through your mouth while counting to four

2. Autogenic relaxation:

- a. Autogenic relaxation is a technique used to relax the body and the mind
- b. First, lie down on your back in a comfortable position
- c. Imagine you are in a calm and relaxing setting
- d. Focus on controlled, relaxed breath by inhaling and exhaling for four second counts
- e. Once your breathing is controlled, repeat the following phrases aloud or in your head until you feel relaxed:
 - i. I am calm and quiet
 - ii. My body feels relaxed and comfortable
 - iii. My mind is calm
 - iv. I feel heavy and still
 - v. My mind and my body are at peace

3. Progressive muscle relaxation:

- a. This technique will help you relax your muscles to prepare your body for sleep
- b. First, lie down on your back in a comfortable position
- c. Then, bring your attention to your feet. Tense the muscles in your feet, and hold the tension for 5 seconds
- d. Following, relax the muscles in your feet for 30 seconds
- e. Repeat this sequence of tension and relaxation for the following areas of the body:
 - i. Feet
 - ii. Legs
 - iii. Buttocks
 - iv. Stomach
 - v. Arms
 - vi. Shoulders
 - vii. Face

**Adapted from Davis, 2008*

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CHAPTER V

Summary

A review of the literature was conducted to assess the common psychological implications of sustaining significant hand trauma. Common psychosocial issues found to be related to hand injury included mood and trauma disorder symptomatology, problems related to role identity, work and financial stress, issues related to social interactions and relationships, stigma, pain, and dysfunctions in sleep. *Assisting Clients with Psychosocial adjustment after sustainment of a Traumatic Hand Injury: A Therapist's Guide*, was created to assist therapists in evaluation and treatment of psychological factors commonly associated with hand injury that likely have consequences on a client's overall wellbeing and function.

Possible Implementation

Psychosocial implications of injury are often interrelated with physical barriers of hand trauma, and as a result should be addressed in conjunction with one another (Hannah, 2011). As hand injuries are often intricate and require long-term therapy services, outpatient hand therapists have a unique role in facilitating adjustment to injury and addressing psychosocial implications (Hannah, 2011). Thus, this product was specifically created for therapists in the outpatient therapy setting to assist clients with addressing psychological factors related to his or her hand injury.

Conclusions

The aim of this scholarly project was to create a two-part product that will aid therapists in evaluating and treating psychological issues commonly associated with hand

injury that could have significances on a client's overall function. The first portion of the product includes a self-assessment evaluation tool that gives the client an opportunity to self-assess ways in which the hand trauma has affected overall wellbeing on a psychosocial level. The second half of the product includes intervention concepts that correlate with the psychosocial implications that were previously self-evaluated by the client to give therapists tools of how to address such implications. This two-part product will allow therapists to address psychosocial aspects from a client-centered perspective. This is achieved by allowing the client to self-assess how the injury has affected his/her wellbeing within a variety of areas.

Limitations

While the product has potential to be beneficial to clients in outpatient hand therapy settings experiencing difficulty with psychosocial adjustment to hand trauma, pilot use of the guide in practice is required to distinguish reliability and validity of the tools. Therefore, a limitation of this scholarly project is lack of pilot use of the product in a practical setting with the target population. An additional limitation of the project is lack of funding that would be required for the creation and implementation of the product within outpatient hand therapy settings. Lastly, traumatic hand injuries are variable in nature and psychosocial treatment of such injuries would require therapists to use clinical reasoning skills to tailor the product for specific individual client use.

Recommendations

In addition to a need for pilot use and research of the validity and reliability of the product in outpatient hand therapy clinics, further development of the scholarly project could enhance the effectiveness of the product. For instance, further research and product

development may be completed for upper extremity trauma or injury in general. With implementation of upper extremity trauma with psychosocial adjustment, more generalized practice settings may be able to incorporate psychosocial adjustment interventions into physical disability occupational therapy practice.

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